

TSMC 97-306

Serial Number 09/086,772

16. A microelectronics fabrication having formed therein a patterned oxygen containing plasma

etchable microelectronics dielectric layer in accord with the method of claim [1] 9.

REMARKS

Favorable reconsideration of this application in light of the above amendments and the following remarks is respectfully requested.

Claims 1-16 are pending in this application. Claims 2, 10 and 16 are amended herein. No claims have been allowed.

Claim Rejections - 35 U.S.C. § 112

The Examiner has rejected claims 2 and 10 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The rejection derives from a deficiency within claim 2 and claim 10 as cited by the Examiner.

In response, applicant has amended claim 2 and amended claim 10 in a fashion

TSMC 97-306
Serial Number 09/086,772

which applicant believes to address the deficiency as cited by the Examiner.

In light of the foregoing response, applicant respectfully requests that the Examiner's rejections of claims 2 and 10 under 35 U.S.C. § 112, second paragraph, be withdrawn.

Claim Objections

The Examiner has objected to claim 16 incident to an informality within claim 16.

In response, applicant has amended claim 16 to address the informality therein as cited by the Examiner.

In light of the foregoing response, applicant respectfully requests that the Examiner's objection to claim 16 be withdrawn.

Claim Rejections - 35 U.S.C. § 102 and 35 U.S.C. § 103

The Examiner has rejected claims 1-16 under 35 U.S.C. § 102(b) as being anticipated by, or in the alternative under 35 U.S.C. § 103(a) as being unpatentable over, Yu et al. (U.S. Patent No. 5,700,737; hereinafter "Yu").

While applicant acknowledges the teachings of Yu as cited by the Examiner, applicant nonetheless asserts that the teachings of Yu as cited by the Examiner are insufficient to properly reject applicant's claim 1 and applicant's claim 9: (1) under 35 U.S.C. § 102(b) as being anticipated Yu; or (2) under 35 U.S.C. § 103(a) as being unpatentable over Yu, insofar as each and every limitation within applicant's invention as disclosed and claimed within claim 1 and claim 9 is neither disclosed nor claimed within Yu.

In that regard, while applicant notes that within applicant's invention as disclosed and claimed within applicant's claim 1 and applicant's claim 9 there is employed a second plasma etch method employing an oxygen containing etchant gas composition for simultaneously: (1) etching applicant's patterned photoresist layer from applicant's patterned hard mask layer; and (2) etching applicant's oxygen containing plasma etchable microelectronics layer (or applicant's oxygen containing plasma etchable microelectronics dielectric layer) to form applicant's patterned oxygen containing plasma etchable microelectronics layer (or applicant's patterned oxygen containing plasma etchable microelectronics dielectric layer), as cited by the Examiner, Yu's corresponding patterned photoresist layer 18 (Fig. 3) is etched from Yu's patterned dielectric hard mask layer 31 (Fig. 3) subsequent to and independent of forming Yu's patterned conductor layer 15 and Yu's patterned anti-reflective layer 17 (Fig. 4) from Yu's blanket conductor layer 14 and Yu blanket anti-reflective layer 16 (Fig. 3) (col. 3, lines 34-55).

Thus, since each and every limitation within applicant's invention as disclosed and claimed within claim 1 and claim 9 is not disclosed within Yu, applicant asserts that claim 1 and claim 9 may not properly be rejected under 35 U.S.C. § 102(b) as being anticipated by Yu, or in the alternative under 35 U.S.C. § 103(a) as being unpatentable over Yu.

Since all claims remaining within this rejection are dependent upon claim 1 or claim 9 and carry all of the limitations of claim 1 or claim 9, applicant additionally asserts that those remaining claims may also not properly be rejected under 35 U.S.C. § 102(b) as being anticipated by, or in the alternative under 35 U.S.C. § 103(a) as being unpatentable over, Yu.

In light of the foregoing response, applicant respectfully requests the Examiner's rejections of claims 1-16 under 35 U.S.C. § 102(b) as being anticipated by, or in the alternative under 35 U.S.C. § 103(a) as being unpatentable over, Yu be withdraw.

Other Considerations

Applicant acknowledges the additional prior art cited by the Examiner but not employed in rejecting applicant's claims to applicant's invention, including: (1) Chiu (U.S. Patent No. 4,994,402); (2) Choi et al. (U.S. Patent No. 5,013,686); (3) Ajika et al. (U.S. Patent No. 5,162,262); (4) Abernathey et al. (U.S. Patent No. 5,219,788); (5) Jun (U.S. Patent No. 5,256,248); (6) Rhoades et al. (U.S. Patent No. 5,269,879); (7) Havemann et al. (U.S. Patent No. 5,472,913); (8) Jang et al. (U.S. Patent No. 5,622,894); (9) Havemann et al. (U.S. Patent No. 5,661,344); (10) Jang et al. (U.S. Patent No. 5,721,172); (11) Jang et al. (U.S. Patent No. 5,840,624); and (12) Yu et al. (U.S. Patent No. 5,858,623), as generally pertinent to applicant's invention.

No fee is due as a result of this amendment.

SUMMARY

Applicant's invention as disclosed and claimed within claim 1 and claim 9 is directed at least in part towards a method for forming a patterned microelectronics layer (or a patterned microelectronics dielectric layer) within a microelectronic fabrication, where there employed within the method a second plasma etch method for simultaneously: (1) etching from a patterned hard mask layer a patterned photoresist layer; and (2) etching to form from an oxygen containing plasma etchable microelectronics layer (or an oxygen containing plasma etchable microelectronics dielectric layer) a patterned oxygen containing plasma etchable microelectronics layer (or a patterned oxygen containing plasma etchable microelectronics dielectric layer). Absent from the prior art of record employed in rejecting applicant's claims to applicant's invention is a disclosure of each and every limitation within applicant's invention as disclosed and claimed within claim 1 and claim 9.

CONCLUSION

On the basis of the above amendments and remarks, reconsideration of this application, and its early allowance, are respectfully requested.

Any inquiries relating to this or earlier communications pertaining to this application may be directed to the undersigned attorney at 914-471-0790 or Mr. George Saile,

TSMC 97-306
Serial Number 09/086,772

Esq. (Reg. No. 19,572) at 914-452-5863, at the Examiner's convenience.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read 'Alek P. Szecsy'.

Alek P. Szecsy (Reg. No. 37,949)

20 McIntosh Drive
Poughkeepsie, NY 12603

914-471-0790
914-452-5863
914-471-2064 FAX